

Contributing to the Enterprise

Management and IT share a common view on the importance and value of decision-making activity.

A Traditional View

Manager • If manage

- Contributes Brain power
- Reward £££

Worker

- Contributes Muscle power
- · Reward £

Technology

- Contributes ???
- Reward ???

If managers mostly work through making decisions ...

Value

- ... and if management is rewarded higher than other forms of work ...
- ... this suggests that decisionmaking has significant value in its own right.
- Technology may share in the creation of this value.
- One of the ways IT is supposed to "add value" to business is by supporting better decisions.

Management Contribution

Decision-making is apparently what managers do for a living. Does this mean that higher-paid managers are better at decision-making?

Decisions get harder ...

- Higher levels of management status and reward are supposedly associated with higher levels of decision-making.
 - More complex
 - Broader in scope and significance
 - More abstract
 - More uncertain greater potential for corporate risk/reward
 - Longer-term

... or maybe not

- If senior managers (executives) are paid more than junior managers, does this mean they deserve more?
 - Junior managers often have more specialist knowledge and expertise
 - Managers dealing with customers on a daily basis may experience more pressure and stress than Head Office executives.
 - Executives may be protected from personal risk by generous exit packages.

Technological Contribution

One of the ways IT is supposed to "add value" to business is by supporting better decisions.

Decision Support

- How do computers "support" decision-making?
 - Greater quantities of information available
 - Improved quality of information available
 - Tools to manage and analyse large quantities of data
 - More efficient communication and data sharing
 - Mechanisms for feedback and learning

Decision Value

- How can we calculate the addedvalue to the business of this computer support?
 - Depends how good (clever, lucky) the managers would be without this support
 - Depends how critical this decision is for the business. (Impact on viability.)
 - Can we shift responsibilities from high-paid to lower-paid staff?

IT may be Necessary but is not Sufficient

It's more than the numbers

- It's the logical analysis of situations -- the understanding of cause-and-effect that results in what the numbers are saying -- that lead to "improved business decisions."
- As Goldratt titled one of his books, referring to Information Technology and its outputs, it's Necessary but Not Sufficient in the effort to improve organizational performance. What helps round out the sufficiency is the application of logical analysis to provide a context for the quantitative analysis. You can't run a business "by the numbers" alone.
- Source: Frank Patrick
- http://www.focusedperformance.com/ 2004_12_01_blarch.html#10876551351590285

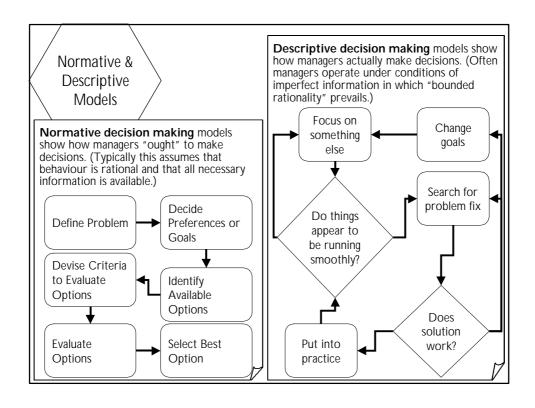
Creating a Culture of Analysis ...

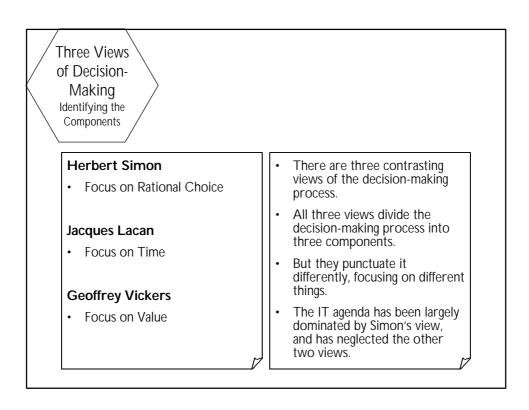
The importance of analytics and access to the 'right information at the right time by the right people' has been largely heralded as a business imperative and essential to enabling the execution of successful business strategy. Consequently, more and more departmental and enterprise-wide data aggregation and analysis projects have come into existence with applications deployed in hopes to more efficiently and effectively understand 'the business.'

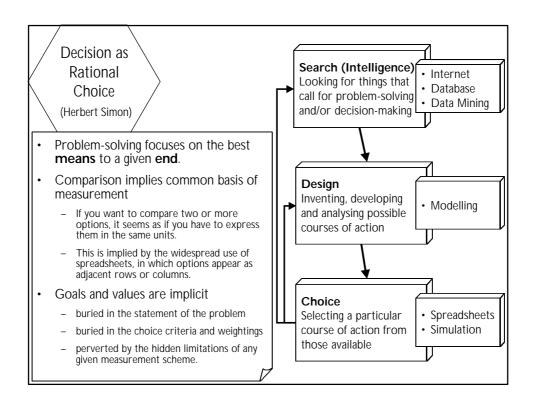
Despite these nominal developments that might otherwise be taken as presaging a new 'culture of analysis' for business management, there is a widening gap between the ability of the new technologies to deliver information beyond management expectations and the actual use of that data by management to make improved business decisions.

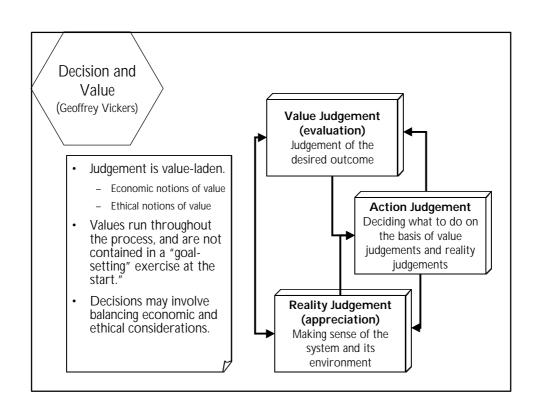
Source: DM Review

 $http://www.dmreview.com/article_sub.cfm?articleId = 1002514$





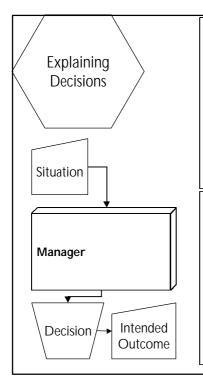




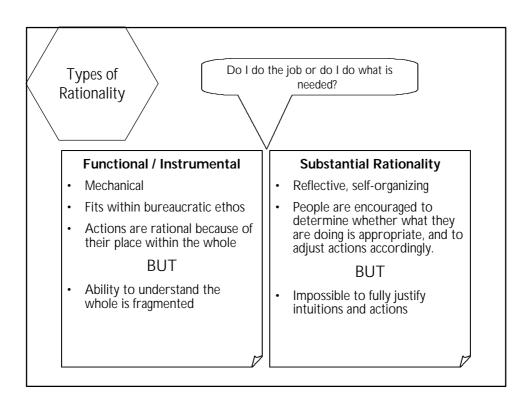
Limits to Rationality

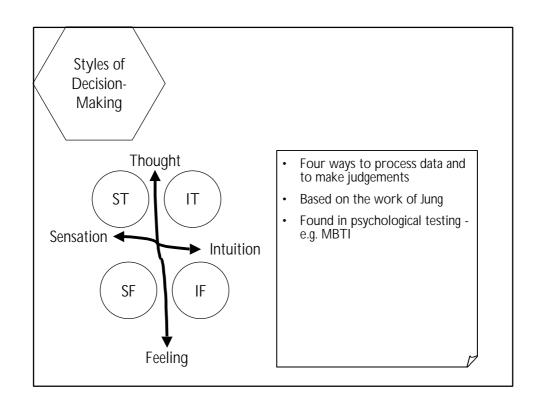
- · People and organizations
 - usually have to act on the basis of incomplete / imperfect information
 - can only explore a limited number of options
 - cannot attach accurate values to outcomes
- Bounded rationality "good enough" decisions - satisficing
 - Herbert Simon (Nobel Prize) and James March

- Organizations can be understood as institutionalized brains
 - fragment, routinize and bound the decision-making process, to make it manageable
 - the articulation of an organization creates a structure of attention, interpretation and decisionmaking
 - simplifies the task facing each manager
 - source: Morgan, p81



- Other people (and organizations) make decisions in ways that are not completely visible to us.
- Even when they tell us why they do what they do, we may not fully believe them.
 - They may be embarrassed about the true reasons
 - They may have reasons for concealing their true agenda.
 - They may be unaware of their own unconscious stuff.
- When analysing decisions, treat manager or committee as a black box.
- · What are the managers ...
 - Beliefs, Blind Spots?
 - Motivations, Aspirations?
 - Alliances?
 - Influences?
- If we assume the manager is completely rational, we may be better able to reconstruct their decisions.





A Theory of Human Capability (Jaques)

Is this theory fair?

- How well does this theory explain the way management structures are designed?
- How accurately do you think this reflects the value actually contributed by managers at different levels?
- People have different levels of ability to handle complexity. The levels are distinct and can readily be identified
- People's capability increases in a predictable way over time
- You can assess a person's capability by observing the complexity of their arguments; and there are four qualitatively different types of argument
- There is a direct correlation with time span or discretion. You can use time span to assess capability or vice versa

Mental Information processing

- · Declarative processing
 - argument by making simple, unconnected points
- Cumulative processing
 - argument by making a number of connected points
- · Serial processing
 - argument based on an "if-then" structure, if A then B and hence C"
- Parallel processing
 - several serial arguments are linked together

How do managers deal with uncertainty?

What are the limitations of these various strategies?

- Reduce the need for information
 - Loose coupling slack resources buffer stocks - self-contained tasks
 - Reduced transaction costs
- Increase capacity to process information
 - Sophisticated information systems
 - Change organization structure for example: improved lateral relations - coordinator roles, task forces, and matrix design.

Impose certainty

- Close off options, make binding commitments.
- Total quality management
- Just-in-time inventory
- Decision-making techniques to mask uncertainty and risk
 - Statistical analysis

Information and Decisions

Sometimes increasing the quantity and quality of information may **increase** management effectiveness.

Sometimes increasing the quantity or quality of information may actually **reduce** management effectiveness.

Potential Advantages

- Information Supply. A good information system should make it much easier for management to obtain reliable information. This could either reduce the amount of time they have to spend obtaining information they need, or increase the amount of relevant information available to them.
- A good information system should make it more likely that relevant risks and issues are identified and properly addressed.
- One aspect of information quality is to be **fit for purpose** properly selected, filtered & presented. Higher quality in this sense may address disadvantages identified opposite.

Potential Disadvantages

- **Information Overload**. As the quantity of available information increases, it becomes harder to analyse and interpret it, and to use it effectively.
- Information Complexity. As the breadth and detail of available information increases, the overall complexity increases. This complexity may cause confusion and stress.
- Control Sensitivity. If information is used for control purposes, too much sensitivity may cause controls to oscillate or go unstable. (As a heating system constantly switching itself on and off.) Excess information may trigger management meddling.

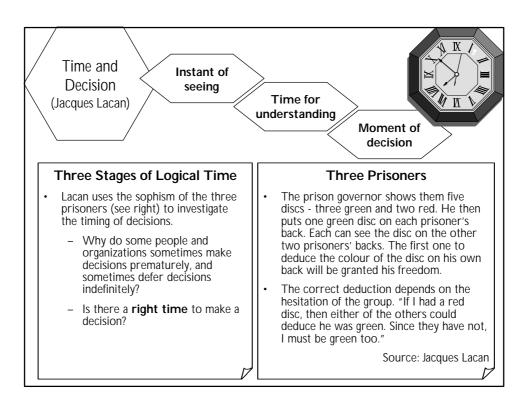
Punctuating Decisions

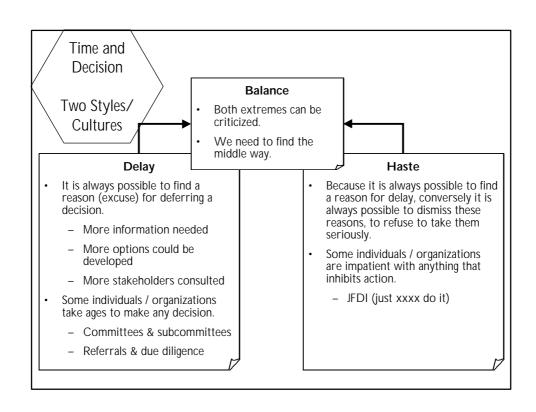
Joined-up Decisions

- Increase coherence by integrating lots of small but related decisions.
- · Avoids coordination failure
- However, increases complexity of decision, and may introduce circular dependencies.
 - "we cannot resolve A until we've resolved B, but we cannot resolve B until we've resolved C ..."

Separated Decisions

- Increase independence and autonomy by decoupling one large decision into a number of small decisions
- · Risk of coordination failure
- May be offset by greater agility and speed.

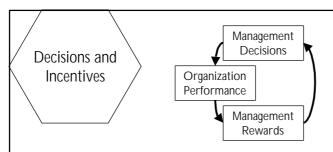




Why don't all managers decide things the same?

- Different Intentions / Values / Preferences
- Different Interpretations and Explanations of What Is Going On
- Different Attitudes towards Risk and Reward
 - risk-seeking // risk-averse
- Different Group Dynamics & Leadership Styles
- Different Horizons
 - Time // Space
 - Organizational Proximity

- Is this one of the main ways of differentiating managers?
 - Knowledge
 - Skills
 - Attitudes
- How do management incentives influence management decisionmaking?
 - Short-term/long-term
 - Risk

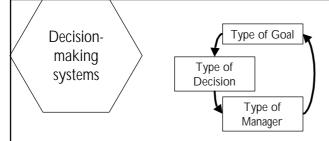


Economic Perspective

- The success and viability of the organization depend in large part on the quality of management decisions.
- The organization, its shareholders and other stakeholders, may benefit from close coupling between management decisions and management rewards.

Ethical Perspective

- The coupling between management decisions and management rewards is easily abused.
 - Management rewards protected against performance downside.
- Management rewards may have unexpected and perverse effects.
 - Share option schemes may encourage excessive risk-taking.



Viable systems

- If an organisation can survive doing what it does it is unlikely to embrace new thinking
- The nature of an organisations goals, the sorts of decisions it takes and the sorts of people it finds to make those decisions are tightly coupled

Entrepreneurial systems

- Organisations that want to change things have to keep themselves from taking superficial or obvious decisions
- If they need to be different they have to do things differently even if that does not make sense to others

Discussion Questions

- Why is managerial decision making a significant factor in achieving organisational effectiveness?
- Why are managers paid to make decisions? Why do different managers decide things differently?
- Which view of decision-making has dominated the IT agenda for decision-support?
- Which view of decision-making dominates accounting practice?
- How do accounts (or any other formal information system) support the decisions of managers and other stakeholders (internal and external)?
- What is the relationship between the quality of information and the quality of decisions?

Case Studies

Prepare for next week's tutorial.

Healthcare

- This case study describes three decisions taken in different places at different times within a large complex organization.
- Each decision can be seen as locally rational within its own "frame" - but when all three decisions are placed side-byside, an entirely different picture emerges.

Kodak

- Among other things, this case describes a difficult business decision, possibly involving the need to balance financial and non-financial effects.
- There are also issues relating to the timing of the decision taken by Kodak.

Sample Exam Question

The Canny McCann Canning Company (CMCCC) has commissioned a new management information system. This is supposed to increase the quality and quantity of information available to management to support a range of planning and control decisions. Most managers in the company are eager to use the information the new system will provide, but some are concerned that it may deflect attention from more important concerns.

- a) Identify specific ways in which increasing the quantity and quality of information may increase management effectiveness.
- b) Identify ways in which increasing the quantity or quality of information may actually reduce management effectiveness.
- c) How could the Canny McCann Canning Company (CMCCC) assess the benefits of the new system? Use one or more specific examples to illustrate your answers.

- A satisfactory answer (>40%) will identify at least one improvement. Will be able to make intelligent connections between management information and the responsibilities of managers, including decision-making and control. Will be able to articulate some benefits.
- An above average answer (>55%) will identify both improvements and problems, and will be able to illustrate the answer with well-chosen examples. Should show some awareness of the fact that the benefits of the management information system will depend on the management's ability to use the information effectively. May show some understanding of the concept of bounded rationality, and the need for "just enough" information.
- An excellent answer (>70%) will demonstrate a clear understanding of the situation as a socio-economic system where the capabilities of the managers are at least as important as the quality and quantity of the information. Will argue clearly that an evaluation of a management information system must view it in its organizational context, and will indicate some of the relevant considerations for such an evaluation

References

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- Gareth Morgan, Images of Organization (Sage) Chapter 4: Organizations as Brains.
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